

# *Training young people for tomorrow's challenges: the contribution of the Water and Coastal Management master degree course (WACOMA)*

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The future of Coasts and Ports in a changing climate: needed actions and opportunities for a Sustainable Blue Economy | 7th November 2023 | Blue Economy room | Ecomondo



**The need to preserve coastal environments and its resources is linked with a pressing need for a well-trained marine and coastal science workforce**

**Young students must be stimulated by senior teachers and scientists to look beyond single disciplines from the start of their career, taking advantage of multi- and inter-disciplinary**

**1- The international 2-yr master degree programme (Laurea magistrale, 120 ECTS) in Water and Coastal Management (WACOMA) is offered at the Ravenna Campus of the University of Bologna**

**WACOMA is entirely thought in English to ensure international perspectives**

**2- WACOMA keywords are at the center of political, financial, and social agendas worldwide: coastal erosion, salt intrusion, water pollution, biodiversity loss, marine level rise, climate challenge mitigation and adaptation, wave force dissipation, etc.**

**3- Interdisciplinary knowledge on the marine environment and on estuarine, lagoon and coastal systems are offered as crucial for the figure of manager of the coastal marine environment, that is increasingly sought after worldwide.**

4- Students acquire a deep understanding of coastal processes, climate change, mitigation and adaptation measures, **and build skills in wetlands restoration, protection of the dune system, integrated coastal zone management, etc. etc.**

5- The use of advanced technologies (remote sensing, data modeling, etc.) is taught during hands-on laboratory and field workshops.



6- Graduates will gain the ability to develop balancing actions between economic growth, ecosystem health, and risk management

#### STUDY PLAN

1<sup>st</sup> year (60 ECTS)

- Bioremediation and exploitation of marine resources
- Chemistry of the coastal environments
- Geographical information systems
- Hydrocomplexity of the Coastal Zone
- Ecology of coastal environments
- Integrated field and laboratory course
- Isotopes as tracers of the sea
- Integrated coastal zone management
- Modeling and assessing climate-related ocean, coastal hazard and risk
- Pollutant Impacts on Human Health and Ecosystems

2<sup>nd</sup> year (60 ECTS)

- Coastal geomorphology and remote sensing
- Sediment characterization and management in coastal areas
- Free-choice courses (at students' choice for a total of 12 ECTS)
- Thesis activities (total of 36 ECTS)

## OPPORTUNITIES

\*High quality programme in a prestigious University

\*Theses offered by the teachers as part of their research projects, also in collaboration with external bodies.

\*Collaboration with Environmental Agencies and Governmental Bodies

\*Involvement in international Projects (e.g Interreg, Life, Horizon) and contexts (e.g. UN Decade Collaborative Center for Coastal Resilience)

\*Erasmus exchanges

## PROSPECTS

**ENVIRONMENTAL MANAGER, ENVIRONMENTAL OFFICER** working on policies for sustainable development, **ENVIRONMENTAL RESEARCHER** innovative research works in different fields; International companies in energy, industrial chemistry, tourism, insurance, fields; **Universities; Research bodies, Prevention and Protection Agencies**, Local, National and Regional **Authorities, NGOs, EEA, UNEP; Consulting companies** or as **freelance** professionals.

### CONTACTS

#### ADMINISTRATIVE COORDINATOR:

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# Thanks for your attention

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